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<110> E. I. du Pont de Nemours and Company

<120> Plant Catabolite Repression Genes

<130> BB1316

<140> US/09/857,525

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<150> 60/112,564

<151> 1998-12-16

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<210> 1

<211> 1576

<212> DNA

<213> Zea mays

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 Gly Glu Phe Gly Ile Val Asn Thr Leu Tyr Leu Thr Arg Glu Tyr Asn
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 Gln Ile Asn Thr Leu Ser Ser Pro Ser Thr Pro Gly Ser Arg Met Asn
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 Met Asp Val Asp Asn Glu Asn Phe Gln Arg Thr Val Thr Leu Ser Asp
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 Gly Thr Val Ser Glu Gly Thr Leu Arg Val Ser Glu Ala Ala Ile Gln
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 Ile Ser Arg Cys Arg Val Ser Glu Tyr Leu Asn Leu His Thr Cys Tyr
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Pro Val Lys Gln Ser Phe His Ile Leu His Glu Gln Gly Ile Pro Val
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 Glu Ala Lys Arg Gln Thr Asn Gly Arg Asn Asp Ser Gln Trp Arg Pro
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 Gln Gln His Leu Val His Ala Thr Pro Tyr Glu Ser Leu Arg Asp Ile
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<211> 2149
<212> DNA
<213> Oryza sativa

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 <211> 493
 <212> PRT
 <213> Oryza sativa

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 Pro Met Ser Pro Val Glu Gly Cys Pro Thr Val Phe Gln Ala Ile Cys
 50 55 60
 Ser Leu Ser Pro Gly Ile His Gln Tyr Lys Phe Cys Val Asp Gly Glu
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 Trp Arg His Asp Glu Arg Gln Pro Thr Ile Thr Gly Asp Tyr Gly Val
 85 90 95
 Val Asn Thr Leu Cys Leu Thr Arg Asp Phe Asp Gln Ile Asn Thr Ile
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 Leu Ser Pro Ser Thr Pro Gly Ser Arg Met Asn Met Asp Val Asp Asn
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Lys	Cys	Ile	Cys	Arg	Tyr	Phe	Lys	Asn	Ser	Gln	Gly	Asn	Leu	Pro	Ile
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Ser	Leu	Ser	Ala	Ala	Leu	Asn	Leu	Leu	Val	Gln	Ala	Gly	Val	Ser	Ser
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Arg Ser Asp Thr Leu Leu Lys Val Met Glu Arg Leu Ala Asn Pro Gly	450		455		460
Val Arg Arg Val Phe Ile Val Glu Ala Gly Ser Lys Arg Val Glu Gly	465		470		475
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 <212> DNA
 <213> Oryza sativa

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 <213> Oryza sativa

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Pro Glu Gly Tyr Ser Phe Leu Gln Asn Gln Ile Val Ser Met Pro Ile
35 40 45

Gly Thr Trp Ser Pro His Thr Gly Lys Ala Ser Asn Arg Gln Leu Arg
50 55 60

Thr Ser Arg Pro Ser Thr Pro Leu Asn Ser Cys Leu Asp Leu Leu Leu
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Glu Asp Arg Val Ser Ser Ile Pro Ile Val Asp Asp Asn Gly Ala Leu
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Leu Asp Val Tyr Ser Leu Ser Asp Ile Met Ala Leu Gly Lys Asn Asp
100 105 110

Val Tyr Thr Arg Ile Glu Leu Glu Gln Val Thr Val Glu His Ala Leu
115 120 125

Glu Leu Gln Tyr Gln Val Asn Gly Arg Arg His Cys His Thr Cys Leu
130 135 140

Ser Thr Ser Thr Phe Leu Glu Val Leu Glu Gln Leu Ser Ala Pro Gly
145 150 155 160

Val Arg Arg Val Val Val Ile Glu Pro Arg Ser Arg Phe Val Gln Gly
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<210> 7

<211> 2160

<212> DNA

<213> Glycine max

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 <211> 482

<212> PRT
<213> Glycine max

<400> 8

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Ser Val Tyr Leu Ser Gly Ser Phe Thr Arg Trp Ser Glu Leu Leu Gln
35 40 45

Met Ser Pro Val Glu Gly Cys Pro Thr Val Phe Gln Val Ile His Ser
50 55 60

Leu Val Pro Gly His His Gln Tyr Lys Phe Phe Val Asp Gly Glu Trp
65 70 75 80

Arg His Asp Asp Leu Gln Pro Cys Glu Ser Gly Glu Tyr Gly Ile Val
85 90 95

Asn Thr Val Ser Leu Ala Thr Asp Pro Asn Ile Leu Pro Val Leu Thr
100 105 110

Pro Asp Ile Val Ser Gly Ser Asn Met Asp Val Asp Asn Glu Ala Phe
115 120 125

Arg Arg Met Val Arg Leu Thr Asp Gly Thr Leu Ser Asn Val Leu Leu
130 135 140

Pro Arg Ile Ser Asp Val Asp Ile Gln Thr Ser Arg Gln Arg Ile Ser
145 150 155 160

Ala Phe Leu Ser Met Ser Thr Ala Tyr Glu Leu Leu Pro Glu Ser Gly
165 170 175

Lys Val Val Thr Leu Asp Val Asp Leu Pro Val Lys Gln Ala Phe His
180 185 190

Ile Leu His Glu Gln Gly Ile Pro Ile Ala Pro Leu Trp Asp Ile Cys
195 200 205

Lys Gly Gln Phe Val Gly Val Leu Ser Ala Leu Asp Phe Ile Leu Ile
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Leu Arg Glu Leu Gly Asn His Gly Ser Asn Leu Thr Glu Glu Glu Leu
225 230 235 240

Glu Thr His Thr Ile Ser Ala Trp Lys Gly Gly Lys Trp Thr Gly Phe
245 250 255

Thr Gln Cys Phe Ile Arg Ala Gly Pro Tyr Asp Asn Leu Lys Glu Ile
260 265 270

Ala Val Lys Ile Leu Gln His Gly Ile Ser Thr Val Pro Ile Ile His

275 280 285
 Ser Glu Asp Gly Ser Phe Pro Gln Leu Leu His Leu Ala Ser Leu Ser
 290 295 300
 Gly Ile Leu Lys Cys Ile Cys Arg Tyr Phe Arg Asn Cys Ser Ser Ser
 305 310 315 320
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 325 330 335
 Val Pro Lys Ile Gly Glu Ser Asn Arg Arg Pro Leu Ala Met Leu Arg
 340 345 350
 Pro Asn Ala Ser Leu Thr Ser Ala Leu Asn Leu Leu Val Gln Ala Gln
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 Val Ser Ser Ile Pro Ile Val Asp Asp Ser Asp Ser Leu Leu Asp Ile
 370 375 380
 Tyr Cys Arg Ser Asp Ile Thr Ala Leu Ala Lys Asp Arg Thr Tyr Thr
 385 390 395 400
 His Ile Asn Leu Asp Glu Met Thr Val His Gln Ala Leu Gln Leu Gly
 405 410 415
 Gln Asp Ser Tyr Asn Thr Tyr Glu Leu Ser Cys Gln Arg Cys Gln Met
 420 425 430
 Cys Leu Arg Thr Asp Ser Leu His Lys Val Met Glu Arg Leu Ala Ser
 435 440 445
 Pro Gly Val Arg Arg Leu Val Ile Val Glu Ala Gly Ser Lys Arg Val
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 Asn Ser

<210> 9
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 aaaaaaaaaa aaaaaaaaaa 25
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<210> 10
 <211> 492
 <212> PRT
 <213> Glycine max

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 Arg Ser Val Phe Leu Ser Gly Ser Phe Thr Arg Trp Leu Glu Leu Leu
 35 40 45
 Pro Met Ser Pro Val Glu Gly Cys Pro Thr Val Phe Gln Val Ile Tyr
 50 55 60
 Asn Leu Pro Pro Gly Tyr His Gln Tyr Lys Phe Phe Val Asp Gly Glu
 65 70 75 80
 Trp Arg His Asp Glu His Gln Pro Tyr Val Pro Gly Glu Tyr Gly Ile
 85 90 95
 Val Asn Thr Val Leu Leu Ala Thr Asp Pro Asn Tyr Met Pro Val Leu
 100 105 110
 Pro Pro Asp Val Ala Ser Gly Asn Ser Met Asp Val Asp Asn Asp Ala
 115 120 125
 Phe Arg Arg Met Ala Arg Leu Thr Asp Gly Thr Leu Ser Glu Val Leu
 130 135 140
 Pro Arg Ile Ser Asp Thr Asp Val Gln Ile Ser Arg Gln Arg Ile Ser

145		150		155		160
Ala Phe Leu Ser	Ser His Thr Ala Tyr Glu	Leu Leu Pro Glu Ser Gly				
	165		170		175	
Lys Val Val Ala Leu Asp Val Asp	Leu Pro Val Lys Gln Ala Phe His					
	180	185		190		
Ile Leu His Glu Gln Gly Val Phe Met Ala Pro Leu Trp Asp Phe Cys						
	195	200		205		
Lys Gly Gln Phe Val Gly Val Leu Ser Ala Ser Asp Phe Ile Leu Ile						
	210	215		220		
Leu Arg Glu Leu Gly Asn His Gly Ser Asn Leu Thr Glu Glu Glu Leu						
	225	230		235		240
Glu Thr His Thr Ile Ser Ala Trp Lys Glu Gly Lys Ser Tyr Leu Asn						
	245	250			255	
Arg Gln Asn Asn Gly His Gly Thr Ala Phe Ser Arg Cys Phe Ile His						
	260	265			270	
Ala Gly Pro Tyr Asp Asn Leu Lys Asp Ile Ala Met Lys Ile Leu Gln						
	275	280			285	
Lys Glu Val Ser Thr Val Pro Ile Ile His Ser Ser Ser Glu Asp Ala						
	290	295		300		
Ser Phe Pro Gln Leu Leu His Leu Ala Ser Leu Ser Gly Ile Leu Lys						
	305	310		315		320
Cys Ile Cys Arg Tyr Phe Arg His Cys Ser Ser Ser Leu Pro Val Leu						
	325	330			335	
Gln Leu Pro Ile Cys Ala Ile Pro Val Gly Thr Trp Val Pro Lys Ile						
	340	345			350	
Gly Glu Ser Asn Arg Arg Pro Leu Ala Met Leu Arg Pro Thr Ala Ser						
	355	360			365	
Leu Ala Ser Ala Leu Asn Leu Leu Val Gln Ala Gln Val Ser Ser Ile						
	370	375			380	
Pro Ile Val Asp Asp Asn Asp Ser Leu Leu Asp Ile Tyr Cys Arg Ser						
	385	390			395	400
Asp Ile Thr Ala Leu Ala Lys Asn Arg Ala Tyr Thr His Ile Asn Leu						
	405	410			415	
Asp Glu Met Thr Val His Gln Ala Leu Gln Leu Gly Gln Asp Ala Tyr						
	420	425			430	
Ser Pro Tyr Glu Leu Arg Ser Gln Arg Cys Gln Met Cys Leu Arg Ser						
	435	440			445	

Asp Pro Leu His Lys Val Met Glu Arg Leu Ala Asn Pro Gly Val Arg
450 455 460

Arg Leu Val Ile Val Glu Ala Gly Ser Lys Arg Val Glu Gly Ile Val
465 470 475 480

Ser Leu Ser Asp Ile Phe Lys Phe Phe Ile Gly Gly
485 490

<210> 11
<211> 1266
<212> DNA
<213> Glycine max

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ccagcagaag ggtctgaaat caattcgaga ttctctcaag cgccgtacca gctacgatgt 1
20
tctacctctt tcgtttcgac tcatcattct taataccgat ttactgggtca agaagagctt 1
80
gaccatcctt ctacaaaatg gtatcgtttc agccccgcta tgggattccc atacctcaac 2
40
ctttgctgga cttcttacga cttcggacta tataaatgtt atccaatatt actggcagaa 3
00
tccagaagcc ctcaatcaaa tagatcaatt caaattgagt agcttaagag atatcgaaaa 3
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ggcaattggc gtactacctt tggagacggt atcgggtacat cctgcgcgac ctcttttacga 4
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tgcttgtcgc gagatgttgc aaaccggggc ccgccgtatc ccgctgggtg atgttgatga 4
80
cgagacggga aaagagatgg tggtcagtgt gattacacaa tatcgtatcc tgaagtttat 5
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aacttatggg gacctacaaa ccgcaaatat ggacactccg gtgatcgacg tcatacatat 6
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gatgggtcaaa cacagcattt cgagcgttcc cattgttgac aaagattcgc gagtacttaa 7
20
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80
tttgactgtg ggagaagctt tggccaatag ggcagaagac tttgccggga tttatacttg 8
40
cagtgaagaa gacaggttgg attcgatctt tgacacgatt cgaaaatcta gagtgcacgc 9
00
attggtggtt atagatgaag agcagcattt gaagggagtg atctctttgt cggatatattt 9
60
gcagtatgta ctctacatg gagaagacga tgattgagcc tgtccgatat tggccatgat 10
20
actacgagga tggataggcg ttgcatagcg atttggcgta caggcacaaa cctgatctca 10
80
cgggtcatta aaatggccac aaatagatgt gattgggcga tttattcata ttcgttaata 11
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ccattttatc ggctcggact aaggataata tggcggattg gcttgtgaat attttatgga 12
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ttatgggcag cataggactt gcaattcaga gattttaccc cctttaaaaa aaaaaaaaaa 12

60
 aaaaaa
 66

12

<210> 12
 <211> 318
 <212> PRT
 <213> Glycine max

<400> 12
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 Asp Phe Leu Lys Arg Arg Thr Ser Tyr Asp Val Leu Pro Leu Ser Phe
 20 25 30
 Arg Leu Ile Ile Leu Asn Thr Asp Leu Leu Val Lys Lys Ser Leu Thr
 35 40 45
 Ile Leu Leu Gln Asn Gly Ile Val Ser Ala Pro Leu Trp Asp Ser His
 50 55 60
 Thr Ser Thr Phe Ala Gly Leu Leu Thr Thr Ser Asp Tyr Ile Asn Val
 65 70 75 80
 Ile Gln Tyr Tyr Trp Gln Asn Pro Glu Ala Leu Asn Gln Ile Asp Gln
 85 90 95
 Phe Lys Leu Ser Ser Leu Arg Asp Ile Glu Lys Ala Ile Gly Val Leu
 100 105 110
 Pro Leu Glu Thr Val Ser Val His Pro Ala Arg Pro Leu Tyr Asp Ala
 115 120 125
 Cys Arg Glu Met Leu Gln Thr Arg Ala Arg Arg Ile Pro Leu Val Asp
 130 135 140
 Val Asp Asp Glu Thr Gly Lys Glu Met Val Val Ser Val Ile Thr Gln
 145 150 155 160
 Tyr Arg Ile Leu Lys Phe Ile Ser Val Asn Val Glu Glu Thr Glu Phe
 165 170 175
 Leu Lys Lys Ser Val Ser Asp Ile Lys Leu Gly Thr Tyr Gly Asp Leu
 180 185 190
 Gln Thr Ala Asn Met Asp Thr Pro Val Ile Asp Val Ile His Met Met
 195 200 205
 Val Lys His Ser Ile Ser Ser Val Pro Ile Val Asp Lys Asp Ser Arg
 210 215 220
 Val Leu Asn Leu Phe Glu Ala Val Asp Val Ile Thr Ile Ile Lys Gly
 225 230 235 240
 Gly Val Tyr Asp Gly Leu Thr Leu Thr Val Gly Glu Ala Leu Ala Asn

245 250 255
 Arg Ala Glu Asp Phe Ala Gly Ile Tyr Thr Cys Ser Glu Glu Asp Arg
 260 265 270
 Leu Asp Ser Ile Phe Asp Thr Ile Arg Lys Ser Arg Val His Arg Leu
 275 280 285
 Val Val Ile Asp Glu Glu Gln His Leu Lys Gly Val Ile Ser Leu Ser
 290 295 300
 Asp Ile Leu Gln Tyr Val Leu Leu His Gly Glu Asp Asp Asp
 305 310 315

<210> 13
 <211> 1632
 <212> DNA
 <213> Triticum aestivum

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 gcaacctact ataactggag agtatggggt ggtaaact ttatacttga caaggaatt 1
 80
 tgaccacata aatactgtac tgagccccac tacacctggg agcaggatgg atgtggacag 2
 40
 tgacagtttt caacgaatgg gttcgttgtc ggatgggtgcc cttcaggaag gttctccaag 3
 00
 aatctcagag gctgctatac agatctctag gtgtcgtggt gctgagtatc tgaatgcgca 3
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 tacaggctat gacctactac cagattctgg aaagggtcatt gctctggaca ttaatttacc 4
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 80
 ttcatcagg ggtcagtttg ttggccttct gagccactg gattttatac ttatattgag 5
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 agagctggaa actcatggct caaacctgac agaggaacag cttgaaacac aactatatc 6
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 tgcgtggaaa gaggctaagc ggcaaaactta tggaagaaat gatggacaac ttagatcaaa 6
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 tcagcatcta gtgcatgcca ccccttatga atccttgagg ggtattgcca tgaaaatact 7
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 cgaaactggc atttctacag tcccaatcat ctattcatcg tcatcagatg gatcgtttcc 7
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 gaactccact ggtagtttgc cgattctaaa ccaaccagta tgctcaattc cgctgggtac 9
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 atctcttagc tctgccctta acttggttgg tcaagctgga gttagttcaa taccattgt 10
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 ggatgataac gactcgctga tcgacacata ctccagaagt gacatcacag ctctagcgaa 10
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agacaaggtc tacacccata tccgcctaga tgagatgacc attcatcagg ccttgcagct 11
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 cgggcaagac gcgaattcac cttttggact tttcaatggt caaagatgcc agatgtgtct 12
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 caagttgctg ctgagctagc gaaaggcctg ttttcgttag ttccggggca agcggtgcca 13
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 gaagagctag catgcaagaa agagattgtg gagccaacat ggagttctct ctctggcttg 14
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 cccaacccaa cccccaccgt ccgtccgtcc gactgtcgta actgaaacta cctggtgact 15
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 aaaaaaaaaa aa 16
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<210> 14
 <211> 442
 <212> PRT
 <213> Triticum aestivum

<400> 14
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 Leu Pro Pro Gly Ile Tyr Gln Tyr Lys Phe Asn Val Asp Gly Gln Trp
 20 25 30
 Arg His Asp Glu Gly Gln Pro Thr Ile Thr Gly Glu Tyr Gly Val Val
 35 40 45
 Asn Thr Leu Tyr Leu Thr Arg Glu Phe Asp His Ile Asn Thr Val Leu
 50 55 60
 Ser Pro Thr Thr Pro Gly Ser Arg Met Asp Val Asp Ser Asp Ser Phe
 65 70 75 80
 Gln Arg Met Gly Ser Leu Ser Asp Gly Ala Leu Gln Glu Gly Ser Pro
 85 90 95
 Arg Ile Ser Glu Ala Ala Ile Gln Ile Ser Arg Cys Arg Val Ala Glu
 100 105 110
 Tyr Leu Asn Ala His Thr Gly Tyr Asp Leu Leu Pro Asp Ser Gly Lys
 115 120 125
 Val Ile Ala Leu Asp Ile Asn Leu Pro Val Lys Gln Ser Phe His Ile
 130 135 140
 Leu His Glu Gln Gly Ile Pro Val Ala Pro Leu Trp Asp Ser Phe Arg
 145 150 155 160

Gly Gln Phe Val Gly Leu Leu Ser Pro Leu Asp Phe Ile Leu Ile Leu
 165 170 175
 Arg Glu Leu Glu Thr His Gly Ser Asn Leu Thr Glu Glu Gln Leu Glu
 180 185 190
 Thr His Thr Ile Ser Ala Trp Lys Glu Ala Lys Arg Gln Thr Tyr Gly
 195 200 205
 Arg Asn Asp Gly Gln Leu Arg Ser Asn Gln His Leu Val His Ala Thr
 210 215 220
 Pro Tyr Glu Ser Leu Arg Gly Ile Ala Met Lys Ile Leu Glu Thr Gly
 225 230 235 240
 Ile Ser Thr Val Pro Ile Ile Tyr Ser Ser Ser Ser Asp Gly Ser Phe
 245 250 255
 Pro Gln Leu Leu His Leu Ala Ser Leu Ser Gly Ile Leu Lys Cys Ile
 260 265 270
 Cys Arg Tyr Phe Lys Asn Ser Thr Gly Ser Leu Pro Ile Leu Asn Gln
 275 280 285
 Pro Val Cys Ser Ile Pro Leu Gly Thr Trp Val Pro Lys Ile Gly Glu
 290 295 300
 Pro Asn Gly His Pro Leu Ala Met Leu Arg Pro Asn Thr Ser Leu Ser
 305 310 315 320
 Ser Ala Leu Asn Leu Leu Val Gln Ala Gly Val Ser Ser Ile Pro Ile
 325 330 335
 Val Asp Asp Asn Asp Ser Leu Ile Asp Thr Tyr Ser Arg Ser Asp Ile
 340 345 350
 Thr Ala Leu Ala Lys Asp Lys Val Tyr Thr His Ile Arg Leu Asp Glu
 355 360 365
 Met Thr Ile His Gln Ala Leu Gln Leu Gly Gln Asp Ala Asn Ser Pro
 370 375 380
 Phe Gly Leu Phe Asn Gly Gln Arg Cys Gln Met Cys Leu Gln Ser Asp
 385 390 395 400
 Pro Leu Leu Lys Val Met Glu Arg Leu Ala Asn Pro Gly Val Arg Arg
 405 410 415
 Val Phe Ile Val Glu Ala Gly Ser Lys Arg Val Glu Gly Val Ile Ser
 420 425 430
 Leu Ser Asp Ile Phe Lys Leu Leu Leu Ser
 435 440

<210> 15

<211> 538
 <212> DNA
 <213> Zea mays

 <220>
 <221> unsure
 <222> (494)
 <223> n = A, C, G or T

 <400> 15
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 0
 gcgtcaacct accatatctg gggagtttgg catagttaac acactttact tgacaaggga 18
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 atataaccaa ataaacacct tatcaagtcc aagcacacct ggaagcagga tgaacatgga 24
 0
 tgtggataat gaaaattttc aacgtacggg tacgttgtca gatggcaccg tttcagaagg 30
 0
 tactctgaga gtttcagagg ctgcaatata aatatctagg tgcgtgtgtt ctgaatatct 36
 0
 gaatttgcatt acatgctatg atttactccc agattctggc aagggtattg ccctagacat 42
 0
 taatttacct gtgaagcaat cattccatat tctccatgaa caggggattc ctgtagctcc 48
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 tctctgggac tcantcaaag gtcaatttgg tgggcccctt agcccaatgg atttcata 53
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<210> 16
 <211> 59
 <212> PRT
 <213> Zea mays

<220>
 <221> UNSURE
 <222> (50)
 <223> Xaa = ANY AMINO ACID

<400> 16
 Val Ser Glu Tyr Leu Asn Leu His Thr Cys Tyr Asp Leu Leu Pro Asp
 1 5 10 15

 Ser Gly Lys Val Ile Ala Leu Asp Ile Asn Leu Pro Val Lys Gln Ser
 20 25 30

 Phe His Ile Leu His Glu Gln Gly Ile Pro Val Ala Pro Leu Trp Asp
 35 40 45

 Ser Xaa Lys Gly Gln Phe Gly Gly Pro Leu Ser
 50 55

<210> 17
 <211> 542
 <212> DNA
 <213> Oryza sativa

<220>
 <221> unsure
 <222> (248)
 <223> n = A, C, G or T

<220>
 <221> unsure
 <222> (534)
 <223> n = A, C, G or T

<220>
 <221> unsure
 <222> (539)
 <223> n = A, C, G or T

<400> 17
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 0
 gattgtcagt atgcctattg gtacatgggc accacatact ggcaaggcaa gcaatagaca 18
 0
 gcttagaact tcgcgaccaa gcactcctct aaattcatgc ctggatttgc tgcttgaaga 24
 0
 tagagtangc tcaattccta tagttgacga taatggcgct ctcttgatg tctactcgct 30
 0
 cagtgatatc atggctctag gcaagaatga tgtcacactc gtattgagct tgaacagtga 36
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 cgggtggacat ccttggagct gcaatacagt gaatggccga agacactgtc atactgctta 42
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 cacatactcc ggaggtttgg acattgtcac tcagggtgcg ggatctcttt taacaagaca 48
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 gg 54
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<210> 18
 <211> 58
 <212> PRT
 <213> Oryza sativa

<220>
 <221> UNSURE
 <222> (23)
 <223> Xaa = ANY AMINO ACID

<400> 18
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 Leu Leu Glu Asp Arg Val Xaa Ser Ile Pro Ile Val Asp Asp Asn Gly
 20 25 30
 Ala Leu Leu Asp Val Tyr Ser Leu Ser Asp Ile Met Ala Leu Gly Lys

35

40

45

Asn Asp Val Thr Leu Val Leu Ser Leu Asn
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<210> 19
<211> 498
<212> DNA
<213> Glycine max

<400> 19
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0
tctttcgttt cgactcatca ttcttaatac cgatttactg gtcaagaaga gcttgaccat 18
0
ccttctacaa aatggatcgc ttccagcccc gctatgggat tcccatacct caacctttgc 24
0
tggacttctt acgacttcgg actatataaa tgttatccaa tattactggc agaatccaga 30
0
agccctcaat caaatagatc aattcaaatt gagtagctta agagatatcg aaaaggcaat 36
0
tggcgacta cctttggaga cggatcggg acatcctgcg cgacctcttt acgatgcttg 42
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tcgcgaagat gttgcaaacc cgggcccgcg gtatcccgcg gggttgatgt tgatgacgaa 48
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gacgggaaaa gagatggt 49
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<210> 20
<211> 122
<212> PRT
<213> Glycine max

<400> 20
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Ser Tyr Asp Val Leu Pro Leu Ser Phe Arg Leu Ile Ile Leu Asn Thr
20 25 30
Asp Leu Leu Val Lys Lys Ser Leu Thr Ile Leu Leu Gln Asn Gly Ile
35 40 45
Val Ser Ala Pro Leu Trp Asp Ser His Thr Ser Thr Phe Ala Gly Leu
50 55 60
Leu Thr Thr Ser Asp Tyr Ile Asn Val Ile Gln Tyr Tyr Trp Gln Asn
65 70 75 80
Pro Glu Ala Leu Asn Gln Ile Asp Gln Phe Lys Leu Ser Ser Leu Arg
85 90 95
Asp Ile Glu Lys Ala Ile Gly Val Leu Pro Leu Glu Thr Val Ser Val
100 105 110

His Pro Ala Arg Pro Leu Tyr Asp Ala Cys
 115 120

<210> 21
 <211> 514
 <212> DNA
 <213> Triticum aestivum

<220>
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 <222> (356)
 <223> n = A, C, G or T

<220>
 <221> unsure
 <222> (382)
 <223> n = A, C, G or T

<220>
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 <222> (427)
 <223> n = A, C, G or T

<220>
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 <222> (431)
 <223> n = A, C, G or T

<220>
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 <222> (439)
 <223> n = A, C, G or T

<400> 21
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 ggatcggttc cgcagctggt gcatcttgca tccctttcag gaattttgaa atgtatctgt 18
 0
 agatacttca agaactccac tggtagtttg ccgattctaa accaaccagt atgctcaatt 24
 0
 ccgctggggg acctgggggt ccaaaaaatg ggtgaaccaa atggcatcca ttgggtatgt 30
 0
 tgccggccta atacatctct taactctgcc cttaacttgt tgggtcaagc tggganttat 36
 0
 tcaataccca ttggtgggat gnataacgac cccttatttg acacataccc aagaagtgc 42
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 gctgcaactc gggcaagacc gaatcacttt gggg 51
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<210> 22
 <211> 77

<212> PRT
<213> Triticum aestivum

<400> 22

Leu Val His Ala Thr Pro Tyr Glu Ser Leu Arg Gly Ile Ala Met Lys
1 5 10 15

Ile Leu Glu Thr Gly Ile Ser Thr Val Pro Ile Ile Tyr Ser Ser Ser
20 25 30

Ser Asp Gly Ser Phe Pro Gln Leu Leu His Leu Ala Ser Leu Ser Gly
35 40 45

Ile Leu Lys Cys Ile Cys Arg Tyr Phe Lys Asn Ser Thr Gly Ser Leu
50 55 60

Pro Ile Leu Asn Gln Pro Val Cys Ser Ile Pro Leu Gly
65 70 75